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Amargosa Valley Public Hearing

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9	MS. SHANKLE: I'm Judith Shankle from Mineral
10	County. I'm the Unit Government Representative and I
11	will be making comments on behalf of Mineral County
12	today.
13	The Department of Energy states that both
14	geologic and engineered manmade barriers will ensure
15	long-term isolation of the waste from the human
16	environment. The DOE uses the engineered barriers to
17	provide most of the protection whereas the Nuclear
18	Waste Policy Act of 1982 originally envisioned that
19	most of the protection would be from the natural or
20	geological barrier. Mineral County believes that when
21	both the natural and engineered barriers are used, the
22	natural barriers should be the basis for isolating the
23	waste.
24	According to the state of Nevada, the
25	following four items are significant issues when
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1	considering Yucca Mountain as a potential repository:
2	One, both the DOE and the state agree that

4 eventually will escape the proposed repository

3 the water is the vehicle by which the radiation can and

- 5 traveling downward through fractures in the rock. The
- 6 DOE and the scientific community accept that the water
- 7 travels from the surface to the proposed repository
- 8 horizon in 50 years or less. After 50 years, the water
- 9 enters the tunnels where the waste is to be deposited
- 10 through a series of engineered barriers that the DOE is
- 11 proposing to keep water away from the waste.
- 12 Two, problems with the barrier system
- 13 includes but are not limited to the following:
- 14 The DOE proposes to place a series of
- 15 titanium drip shields over the disposal containers.
- 16 While the DOE believes that these shields will remain
- 17 intact for thousands of years, research by the state of
- 18 Nevada and the Nuclear Regulatory Commission shows that
- 19 because of fluoride dissolved in Yucca Mountain water,
- 20 the shields will probable last for less than 100 years.
- 21 Excuse me.
- Water penetrating the drip shield contacts
- 23 the waste package. DOE is proposing that a nickel
- 24 alloy called alloy 22 be used for constructing the
- 25 waste packages. DOE predicts that no containers will

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1 be breached due to corrosion in less than 10,000 years.

2 Research done by the state, however, sugges	ts that
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- 3 because of lead and other trace elements in the Yucca
- 4 Mountain environment, the expected lifetime of the
- 5 waste packages is probably less than 1,500 years and
- 6 could be as little as 500 years.
- 7 Three, waste can begin to move out of the
- 8 repository to the water table beneath Yucca Mountain in
- 9 as little as 700 years. Both the state of Nevada and
- 10 the DOE agree that once radioactive materials leave the
- 11 waste containers, they can begin showing up in wells 11
- 12 miles from Yucca Mountain within 500 years.
- While DOE's models predict that waste
- 14 containers will retain intact for over 10,000 years,
- 15 research sponsored by the state shows the containers
- 16 are likely to corrode sooner than that. DOE's claim
- 17 they will meet Federal standards for isolation of this
- 18 waste for 10,000 years is not supported by state
- 19 research, rendering Yucca Mountain unsuitable for
- 20 development as a repository.
- And four, presently, the DOE's proposed Yucca
- 22 Mountain repository will contaminate an aquifer that is
- 23 now being used for drinking water and irrigation. Not
- 24 only will the aquiver be contaminated, it will be

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25	contaminated at a	level not	allowed	anywhere	else	in

- 1 this country. The agriculture area that is supported
- 2 by this aquiver is currently home to farms, ranches and
- 3 dairies that provide 20 percent of the milk supplied
- 4 for Nevada.
- 5 The DOE is continually evaluating the
- 6 analytical design scenarios and range of possible
- 7 design features. What-if analytical, theoretical
- 8 scenarios are not conclusive. To date, no specific
- 9 repository or waste package design has been selected
- 10 and analyzed.
- The analytical, theoretical scenarios and
- 12 possible variable ranges should not be a basis for
- 13 providing a recommendation whether the site is suitable
- 14 or not a repository -- excuse me -- or not as a
- 15 repository for high-level radioactive waste. A final
- 16 design should be proposed, produced and analyzed before
- 17 such a recommendation could be made.
- The radioactive waste should not be buried
- 19 because there is no way mankind can predict what will
- 20 happen in the future. High risk of transporting,
- 21 seismic activity, inclement weather, and the magnitude

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- 23 only a few reasons why the radioactive waste should not
- 24 be buried. The DOE should accept the waste at the site
- 25 of origin until alternate ways could be studied so

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- 1 technology can find a way to reduce this radioactive
- 2 waste. Thus, a reasonable no-action alternative is
- 3 preferred until technology can provide a better way of
- 4 eliminating spent nuclear fuel and nuclear waste.
- 5 The DOE's site analyses should include
- 6 analysis of the risk of transporting it, funds to
- 7 monitor it, costs of drip shields to be emplaced at
- 8 time of waste package emplacement, leaks and repairs,
- 9 and mitigation costs.
- In conclusion, Mineral County believes the
- 11 proposed Yucca Mountain Project is not a suitable site
- 12 as a repository for high-level nuclear radioactive
- 13 waste.
- 14 Mineral County agrees with the state of
- 15 Nevada's comments on the DOE's SDEIS, page one:
- The DOE with all this time and study still,
- 17 quote, "fails to appropriately reflect the unique
- 18 nature and scope of the Yucca Mountain program. It

19	does not adec	uately asses	s impacts	associated	with	the
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- 20 repository and related activities, and it is not in
- 21 compliance with either the letter or spirit of NEPA.
- 22 The state reitates its assertion that a PEIS for a
- 23 high-level waste program should have been, and still
- 24 should be, prepared. The unique, first-of-a-kind
- 25 nature, complexity, and unprecedented time scale of the

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- 1 Federal high-level waste program require the
- 2 preparation of a PEIS with project specific EISs for
- 3 related program elements tiered to the PEIS. The
- 4 high-level waste program is simply too massive in scope
- 5 and overwhelming in complexity for DOE to attempt to
- 6 use a single EIS as the vehicle for addressing impacts
- 7 and making problematic decisions. By preparing a
- 8 narrowly focused, non-problematic EIS such as the draft
- 9 released for comment, and then indicating that it will
- 10 be the basis for some program decisions and not for
- 11 others, DOE is circumventing the intent of the National
- 12 Environmental Policy Act," unquote.
- 13 The shipping campaign has changed for both
- 14 the duration and materials being used. The DOE has
- 15 indicated that it will continue performance

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- 17 designation -- excuse me -- following site approval and
- 18 designation. Its analyses are inadequate in so many
- 19 respects, especially with respect to its transportation
- 20 elements or parameters and should address mitigating
- 21 increased transportation risks and what mitigation
- 22 measures from the DEIS remain valid.
- At tragic as terrorists attacks are, the
- 24 magnitude of damage would not come close to what would
- 25 happen if these terrorists fanatics were to get ahold

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- 1 of the nuclear waste. The Japanese incident,
- 2 terrorist's attacks and human error -- the WIPP
- 3 incident where a truck transporting low-level nuclear
- 4 waste got misrouted -- are only wake-up calls and
- 5 should be heeded to, when considering a campaign of
- 6 this magnitude. If DOE and the nation are not ready to
- 7 take on a campaign of this magnitude.